RULES
OF
THE TENNESSEE COMMISSION ON FIRE FIGHTING
PERSONNEL STANDARDS AND EDUCATION

CHAPTER 0360--2--1
CERTIFICATION OF TRAINING AND EDUCATION PROGRAMS

TABLE OF CONTENTS

0360--2--1--.01 Local Fire Departments
0360--2--1--.02 Vocational Schools and Institutions of Higher Education
0360--2--1--.03 Special Courses and Programs
0360--2--1--.04 Advanced Courses and Seminars

0360--2--1--.01 LOCAL FIRE DEPARTMENTS.

(1) Fire Departments participating in the Commission programs will be approved by the Commission upon receipt of a properly signed application in a form provided by the Commission.

(2) The fire department must commit that its programs meet or exceed the standards set forth in these rules and regulations.

(3) All phases of the department training programs must meet or exceed the performance standards set forth in these rules and regulations.

(4) Each participating fire department must have at least one person with an interim or permanent instructor certification.

(5) If a course or program has not been properly submitted and certified by the Commission, persons completing such course or program will not receive credit from the Commission for having taken the course or program.

***Authority**: T.C.A. 4--24--106 and 4--24--107.* ***Administrative History**: Original rule filed August 27, 1979; effective October 10, 1979. Amendment filed November 8, 1990; effective December 23 ,1990.*

0360--2--1--.02 VOCATIONAL SCHOOLS AND INSTITUTIONS OF HIGHER EDUCATION.

(1) If an institution wishes to have its courses certified, it must submit written descriptions of said courses to the Commission for consideration.

(2) In order to receive course certification, the course content must be submitted, in writing, to the Commission at least thirty (30) days prior to consideration by the Commission.

(3) Courses in fire training must meet or exceed performance standards as set forth in these rules and regulations.

(4) Advanced courses and seminars in fire service, fire engineering or other advanced fire related training must be submitted to the Commission in sufficient detail to show adequacy of course content on the subject.

(5) Any institution desiring to have a program (consisting of one or more courses or seminars) certified must:

(a) submit a detailed description of the program at least thirty (30) days prior to consideration by the Commission; and

(Rule 0360-2-1-.02, continued)

(b) have each course or seminar certified by the Commission as set forth above; and

(c) show that at least 80% of the advanced courses and seminars set forth in 0360--2--1--.04 are included in the subject matter of proposed certified programs.

(6) If a course or program has been properly submitted and certified by the Commission, persons completing such course or program will be given credit toward individual certification. Completion of unapproved courses or programs will not result in such credit.

***Authority**: T.C.A. 4--24--106 and 4--24--107.* ***Administrative History**: Original rule filed August 27, 1979; effective October 10, 1979. Amendment filed November 8, 1990; effective December 23, 1990.*

0360--2--1--.03 SPECIAL COURSES AND PROGRAMS. Any entity or organizations not otherwise covered by these rules and regulations which offer special courses, programs, or seminars in fire related subjects may request certification of such offerings. Each certification will be considered, giving due weight to course content and qualifications of instructors.

***Authority**: T.C.A. 4--24--106 and 4--24--107.* ***Administrative History**: Original rule filed August 17, 1979; effective October 10, 1979. Amendment filed November 8, 1990; effective December 23, 1990.*

0360--2--1--.04 ADVANCED COURSES AND SEMINARS. Recommended Curricula. The Commission will consider the following criteria as meeting minimal course content for certification. Additional, substantially different course offerings will be considered for certification giving due weight to course content and qualifications of instructors to comply with NFPA standards.

(1) *Introduction to Fire Science (Fire Control).* A course to acquaint the student with the broad field of fire science. Identification and definition of the fire problem and what different organizations are doing to control it. A study of the history and philosophy of fire protection and prevention and of different methods of educating the public in fire prevention. Emphasis on some of the problems of the fire service with some potential or possible solutions.

(2) *Principles of Fire Protection Chemistry*. Relationship of fire to the physical world through chemistry and physics. Develops understanding of heat transfer and its effect on combustibles. Shows how modern extinguishing agents chemically extinguish fires.

(3) *Principles of Hydraulics (Basic).* Basic fluid mechanics. A study in applying the principles of hydraulics to fire fighting problems. Attention is also given to water supply problems. Preparation for more advanced courses in specialized hydraulics, such as extinguishing systems design and fire ground hydraulics.

(4) *Principles of Hydraulics (Advanced*). Advanced level of hydraulics in the fire fighting field. Surveys the laws of hydraulics as they pertain to fire science. Includes a study of pressures and measurements. Reviews related math and pertinent theorems and formulas.

(5) *Extinguishing and Alarm Systems*. Fixed and portable fire extinguishers. Study of the required standard for water supply; special hazards protection systems; automatic signaling and detection systems; rating organizations and underwriting agencies; National Fire Protection Association codes governing installation.

(6) *Sprinkler and Standpipe Design*. Designing sprinkler and standpipe systems. Selection of systems to fit building needs and adjusting present systems to meet needed changes.

(7) *Inspection Practices and Procedures for Fire Safety*. The development and philosophy of fire inspection. Proper inspection techniques and procedures, arson investigation, and the

(Rule 0360-2-1-.04, continued)

development of technical inspection reports. Application of building and fire codes to fire inspections.

(8) *Fire Protection Evaluation*. Evaluation of public fire defenses in a municipality or other areas, organizations, physical resources, etc. Some actual or simulated evaluations should be done by students.

(9) *Building Construction and Fire Codes*. Building construction as related to fire protection. A study of fire codes and standards including how to read them properly. A study of modern protection equipment and building construction materials including fire resistance ratings.

(10) *Industrial Hazards*. A study of the causes of fires in various types of industries. Fire Hazards associated with industrial operations and processes, minimization of industrial fire hazards. A study of new techniques and chemicals used in industrial fires. Minimal introduction to high property risk management.

(11) *Fire Fighting Strategy and Tactics*. Modern methods and procedures of size-up and condition determination. Aspects of company operations and performance levels. A study of tactical decisions and post fire analysis. Prefire planning, duty assignments and general fire ground operations. (Note: This could be divided into Basic and Advanced Courses.)

(12) *Fire Department Administration*. Systems approach to planning public fire safety. Fire department organization, administration and operation. Includes fire company organization; the officer (duties, responsibilities, leadership and supervision); personnel administration; communications; maintenance; training; records and reports.

(13) *Legal Aspects of Fire Science*. Legal rights and responsibilities of fire fighters, liabilities of fire fighters, mutual aid and assistance of fire departments, jurisdictional domain, organization procedures.

(14) *Fire Resistance Test Methods and Procedures.* In-depth study of fire resistance testing as done by nationally recognized testing laboratories such as the American Society of Testing Materials, and the Underwriters Laboratories. Applying the results of these tests to designing proper fire protection systems.

(15) *Structural Design (Fire Protection Design*). Designing structural systems to meet fire code requirements. Protecting structural members and proper building techniques to insure hourly rated structural systems against fire.

(16) *Flammable and Hazardous Materials*. Study of chemical characteristics and reactions related to storage, transportation, handling hazardous materials (i.e., flammable liquids, combustible solids, oxidizing materials, corrosive materials, and radioactive compounds). There should be some special emphasis on emergency situation, fire fighting, and control.

(17) *Mathematics (Advanced*). A study of technical math as related to fire technology courses. The following math functions are offered as guidelines and are not intended to be all encompassing:

(a) algebraic expressions and operations
(b) factoring
(c) fractions
(d) one-variable equations
(e) linear and quadratic functions
(f) graphing of functions
(g) systems of equations, exponents and radicals

(Rule 0360-2-1-.04, continued)

(h) solving quadratic and radical equations
(i) numerical trigonometry
(j) logarithms
(k) applications

(Note: Subjects are listed by arbitrary titles; therefore, course content could be contained under another title.)

***Authority**: T.C.A. 4--24--106 and 4--24--107. **Administrative History**: Original rule filed August 27, 1979; effective October 10, 1979. Amendment filed November 8, 1990; effective December 23, 1990.*